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APPLICATION OF

DANNY GOLD

FOR LETTERS PATENT OF THE UNITED STATES

FOR IMPROVEMENTS IN AN

CELL PHONE GLOVE

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CELL PHONE GLOVE

This application claims the priority of Provisional Application Serial No. 60/400,716 filed on August 2, 2002.

BACKGROUND OF THE INVENTION

The invention is generally directed to a glove or mitten construction in which a selectively and reversibly opened access is available to the thumb, by a user wearing a glove or mitten, without removing the glove or mitten. In the past, when wearers of gloves or mittens wished to use a cell phone while wearing the glove, it has been necessary to remove the glove completely to use the cell phone or other electronic device requiring manual dexterity such as a personal data assistant, wireless e-mail device or the like. Accordingly, there is a need for an improved glove or mitten which allows easy access of the thumb to cell phones or similar electronic devices without having to remove the glove. This is particularly relevant where the conditions are cold, wet or otherwise unpleasant and it would be uncomfortable and unwieldy to remove the glove or mitten.

SUMMARY OF THE INVENTION

The invention is generally directed to an improved glove or mitten including an opening on the side of the thumb of the glove in a fashion which does not interfere with the operation

of the glove but allows, in the open position, the wearer's thumb to extend through any insulation and outer shell of the glove and have direct access to a cell phone or other device requiring manual dexterity of the thumb and having a reclosable opening which allows the glove to be sealed with the thumb back inside the glove in a fashion which does not interfere with the use of the glove when closed.

Accordingly, it is an object of the invention to provide an improved cell phone glove which allows the user to remove their thumb from the glove or mitten without taking off the remaining portion of the glove.

Another object of the invention is to provide an improved cell phone or electronic glove in which an opening is made in the outer surface of the glove along the side of the thumb in a fashion which does not interfere with the gripping ability of the thumb portion of the glove or create a loose or tangling section of the glove.

Yet another object of the invention is to provide an improved glove having access through the lining of either the thumb or one or more of the fingers of the glove which does not interfere with the use of the glove with the fingers and thumb in

the glove but allows access through a reclosable opening to the exterior while keeping the remaining portion of the glove on the wearer's hand.

Yet a further object of the invention is to provide a glove with a reclosable opening through the shell and insulation of the glove along a side of the thumb such that the performance of the glove with the opening closed is unchanged from a standard glove while in the opened position the wearer can, without difficulty, extend a portion of the thumb, including the tip of the thumb, out of the glove while keeping the remaining portion of the wearer's hand within the glove.

Still yet another of the object of the invention is to provide an improved cell phone glove with a thumb opening wherein the egress of the thumb is juxtaposed so that it is convenient to use a cell phone.

Still yet a further object of the invention is to provide an improved glove or mitten with a zippered access opening provided in the thumb portion to allow the wearer to remove the thumb without removing the rest of the glove or mitten.

Still yet another object of the invention is to provide an improved glove or mitten with a hook and pile access opening provided in the thumb portion to allow the wearer to remove the thumb without removing the rest of the glove or mitten.

Still other objects and advantages of the invention will, in part, be obvious and will, in part, be apparent from the specification.

The invention accordingly comprises the features of construction, combinations of elements and arrangements of parts which will be exemplified in the construction as hereinafter set forth, and the scope of the invention will be indicated in the Claims.

BRIEF DESCRIPTION OF THE DRAWINGS

For a fuller understanding of the invention, reference is had to the following description taken in connection with the accompanying drawings, in which:

Fig. 1A is a perspective view of a cell phone glove constructed in accordance with a first preferred embodiment of the invention;

Fig. 1B is a perspective view of the construction of the thumb of the glove of 1A;

Fig. 1C is plan view of the thumb of the liner of the glove of Fig. 1A;

Fig. 2A is perspective view of a cell phone glove constructed in accordance with another preferred embodiment of the invention;

Fig. 2B is a perspective view of the construction of the thumb of the glove of 2A;

Fig. 2C is plan view of the thumb of the liner of the glove of Fig. 2A;

Fig. 3 is a perspective view of a wearer using a cell phone glove in accordance with a preferred embodiment of the invention with the opening in its open position and the wearer's thumb extending outwardly through the insulation and outer shell to access and use a cell phone;

Fig. 4 is a top plan view of the construction of the shell thumb in accordance with another preferred embodiment of the invention;

Fig. 5 is a top plan view of the shell of a cell phone glove in accordance with the preferred embodiment of Fig. 4;

Fig. 6 is a top plan view of the lining of a cell phone glove in accordance with the preferred embodiment of Figs. 4 and 5;

Fig. 7 is a top plan view of the construction of the lining thumb in accordance with the preferred embodiment of Figs. 4, 5 and 6; and

Fig. 8 is a top plan view similar to Fig. 4 with the flap open.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Reference is first made to Figs. 1A, 1B and 1C wherein a cell phone glove, generally indicated as 100 constructed in accordance with a preferred embodiment of the invention is depicted. As seen if Fig. 1A, Cell phone glove 100 includes a thumb portion 101 with a zipper 102 which controls the opening to the inside of the glove. As best seen in Fig. 3, the opening, when unzipped, provides the wearer with access of the thumb through the inner insulation layer 200 through a slit 201 in opening 202. The location of the opening 202, best seen in Fig. 3, is positioned at a location which does not interfere with the use of the glove when the zipper is closed, as shown in Fig. 1.

On the other hand, when the opening 202 is open, the thumb is easily placed outside of the opening to allow appropriate access and use of a cell phone or other electronic device like a personal data assistant or wireless e-mail device. While the invention is particularly suited to the use of access through the thumb, similar access can be provided for other fingers as may be needed for specialized usages. Generally, the thumb access is the preferred embodiment. Fig. 1B shows just the thumb portion of the glove and the way in which the zipper is situated on the thumb. This location is one which would not ordinarily affect any normal use of the glove when the zipper 102 is zipped close. Section 107, which is attached to Section 108 overlies the upper portion of zipper 102 so that the pull member 109 of zipper 102 is partially covered so that it doesn't inadvertently get in the way or interfere with the use of the glove 100 when zipped. Fig. 1C shows the slit 201 in insulating layer 200 which allows the thumb to extend outside of the glove when the zipper 102 is opened, providing access to the opening 202. In the preferred embodiment the insulation opening is a slit which keeps the insulative properties of the glove intact for the rest of the wearer's hand. When the user is finished using the cell phone or other device the

thumb is easily pulled back within the opening and through the slit 201 in insulation 200. Then, the zipper 102 is moved to the closed position and the opening is sealed to provide good insulation. Generally, as shown in Fig. 1, the seam 110 of the outer shell of thumb 101 covers the zipper so the zipper is not generally exposed and better insulative characteristics are provided for the thumb.

Reference is next made to Figs. 2A, 2B and 2C, wherein a second cell phone glove 300 constructed in accordance with another preferred embodiment of the invention is depicted. Like elements are represented by like reference numerals. The difference between the embodiment of Fig. 2A and the embodiment of Fig. 1A is the location and access of the opening. Whereas the embodiment of Fig. 1A includes a partial flap section 107 covering over the zipper 102 so that the zipper is hidden when not in use, in the embodiment of Fig. 2, the zipper 302 controlling access to the opening in the glove and zipper pull 309 are exposed and generally more accessible. As seen, Sections 307 and 308 do not overlap and form a flap which shields or shelters zipper 302. Rather, it is open and exposed. Depending upon the construction requirements and access needs, either approach may be utilized.

Fig. 3 shows the glove of the embodiment of Fig 1A in use, as described above, with the thumb 10 extending out of the opening 202 in the shell and through slit 201 in the insulating layer. As can be seen, when the thumb 10 extends outwardly, the portion of the thumb not outside glove 100 is kept warm by the way in which slit 201 grips the sides of the thumb 10 so there is a limited ability of the outside air to gain access to the inside of the glove. Also, the opening in the shell, 202 is bigger than the slit 201 so that the user has more flexibility to move the thumb 10 around and manipulate the buttons on the cell phone 50 or other device without restriction. However, when one is finished with the need for the thumb 10 to be exposed and free from the glove, it can be easily withdrawn through opening 202 and slit 201 before being rezipped and returned to the original condition of Fig. 1A with the entire hand inside the glove 100. Otherwise, the remainder of the glove or mitten may be made in conventional fashions unless a similar system is indicated to release one or more other fingers from the glove for selective use outside without removing the glove.

Reference is next made to Figs. 4, 5, 6 and 7 wherein a cell phone glove 500 in accordance with another preferred

embodiment of the invention is depicted. Rather than using a zipper as in the prior embodiments, a velcro® hook and pile system is utilized. Other types of closure mechanisms can be used in connection with the system. As seen in Fig 4 which is the construction of the shell thumb, thumb 501 has a panel 550 attached over an opening in thumb 501 held in place by stitching 554 which is only on the right edge of panel 550 so that the panel 550 can rotate about the stitching when pulled open by pulling on handle 553. As shown in Fig. 8, which shows the panel 550 pulled back all the way open, a condition that is not necessary for access, but is shown for ease of explanation. Panel 550 is rotated open, releasing hook connectors 560 on the inside surface of panel 550 adjacent handle 553 from pile connector 561, which is formed in a u-shaped section, and surrounds a flap 562 which fills the inner portion of the u-shaped connector 561. A small slit, 563 is formed between the edge of flap 562 and the attached side of panel 550, which allows the user's thumb to emerge from within the glove. This provides a double sort of gasket system, with the lining having one system and this shell having a second.

As seen on Fig. 5, the thumb 501 has the apparatus for opening the thumb away from the surfaces of the glove which are

used with the glove on. The surface picked is one which is both away from contact usually made when wearing a glove and the gripping surfaces of the hand, but one easily accessible to the thumb to slip out of the glove and then access a device which can be activated or used with a thumb. While only a single glove is shown, it is contemplated that both gloves would have a similar access for the thumb.

Reference is next made to Fig. 6 wherein the lining of the glove is shown and Fig. 7 wherein the piece used to make the lining for the thumb are shown. Thumb piece 571 has a slit 575 shown with a dotted line as it would not be visible under flap 572 which is sewn in place around a portion of the top, left side and portion of the bottom by seam 573. When a user inserts his thumb through the slit from within the glove, which would be from the bottom of Fig 7, flap 572 would move so the thumb of the user would push the right side of the flap up and away from the slit 575 and allow the thumb to continue up through the opening in the shell 501. The flap helps keep the heated air on the inside of the glove and the rest of the wearer's hand warmer, particularly when added to the warming effect of panel 562 which tends to keep cool

air from coming through when the thumb is pushed out of the opening in the shell.

While the preferred opening is on the side of the thumb stall, it can, in other preferred embodiments, be moved in different locations along the periphery of the thumb to allow access depending upon the appropriate application.

An important element of the invention is the method of egress from the lining as highlighted in Figs. 1C, 2C and 3. This access through the lining has the benefit of minimizing the effect of the opening structure and hardware on the user's thumb when it is in the inside of the glove and also limits the access of the cold air to the inner portion of the hand when the thumb extends through the slit in the opening.

While the examples shown in the drawings are gloves and not mittens, the relevant elements of the invention reside in the thumb region and not the fingers, except for applications where another finger or additional finger besides the thumb requires removal without taking off the glove or mitten. The thumb assembly can be utilized with any glove construction and is not limited to the examples shown.

Accordingly, an improved cell phone glove or mitten providing direct access of the thumb to an electronic device such as a cell phone, personal data assistant or wireless e-mail device is provided.

It will thus be seen that the objects set forth above, among those made apparent in the preceding description, are efficiently obtained and, since certain changes may be made in the above constructions without departing from the spirit and scope of the invention, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative, and not in a limiting sense.

It is also to be understood that the following claims are intended to cover all of the generic and specific features of the invention, herein described and all statements of the scope of the invention which, as a matter of language, might be said to fall therebetween.